



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/701,547

11/05/2003

Hai H. Trieu

31132.163

8357

46333 7590 10/10/2007  
HAYNES AND BOONE, LLP  
901 MAIN ST  
SUITE 3100  
DALLAS, TX 75202

EXAMINER

SNOW, BRUCE EDWARD

ART UNIT

PAPER NUMBER

3738

MAIL DATE

DELIVERY MODE

10/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/701,547

Applicant(s)

TRIEU ET AL.

Examiner

Bruce E. Snow

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4-7,9-30 and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) 13,14,17,20-27,30 and 41-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-7,9-12,15,16,18,19,28,29,40,44 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/10/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of Group I, Species 1, and polyurethane in the reply filed on 11/02/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 13-14, 17, 20-27, 30-37, 39, and 41-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention/species

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claim 12, outer body and inner body each comprise one or more apertures in communication with the cavity must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 3738

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-7, 9, 10, 18, 28, 29, 40, 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiyama (5,720,474).

Referring to all figures and embodiments and noting the device can be made in varying sizes, Sugiyama teaches:

4. (Previously Presented) A vertebral implant device for interposition between two vertebral bodies, the device comprising:

an outer body 1;

an inner body 2, wherein the outer body includes at least one slot 4 and the inner body includes at least one tab 3, and wherein the tab movably engages the slot; and

a core member 7, 8 positioned between the outer body and the inner body, wherein the outer body is movably engaged with the inner body and wherein responsive to a load applied to the device, the outer and inner body at least partially compress the core member.

Regarding claim 29, see at least figure 3 showing elements 8a, 8b.

All other claim limitations are believed to be self-evident.

Claims 4-7, 9-12, 15, 16, 29, 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedman et al (4,759,769). Hedman et al teaches:

4. (Previously Presented) A vertebral implant device for interposition between two vertebral bodies, the device comprising:

an outer body 28;

an inner body 26, wherein the outer body includes at least one slot 62 and the inner body includes at least one tab 66, and wherein the tab movably engages the slot; and

a core member 72, 74 positioned between the outer body and the inner body, wherein the outer body is movably engaged with the inner body and wherein responsive to a load applied to the device, the outer and inner body at least partially compress the core member.

Claim 5, see chamber 52 and 58.

Claim 6, see shaft 36 and 42.

Claims 11 and 15, see 4:4-9, the porous surface makes cavities.

Claim 12, the cavity is interpreted as the opening which extends  $\frac{3}{4}$  around the device except for elements 42, 54.

Claim 29, the helical shape.

All other claim limitations are believed to be self-evident.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (5,720,474).

Sugiyama teaches the device as described above, however, fails to teach the elastomer core elements 8 comprise polyurethane. Polyurethane is well known for its elastic properties and would have been obvious to have been used for the core of Sugiyama with predictable results.

Claims 18, 19, 28, 44, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedman et al (4,759,769).

Hedman et al teaches the device as described above, however, fails to teach the core is an elastomer and further is polyurethane. It would have been obvious to one skilled in the art to have made the springs 72, 74 from an elastomer including

Art Unit: 3738

polyurethane for the known elastic properties required for a spring, the resulting product would have had predictable results. It would have also been obvious to one skilled in the art to have replaced the helical springs with elastomer bumpers wherein the results would have been predictable.

Regarding claims 44 and 45, it would have been inherent/obvious to assembly the device in a surgical arena or a factory as deemed necessary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce E. Snow whose telephone number is (571) 272-4759. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

bes

A handwritten signature in black ink, appearing to be 'B. E. Snow', with a long horizontal stroke extending to the right.

**BRUCE SNOW**  
PRIMARY EXAMINER